DOCUMENT RESUME

ED 109 332 95 CE 004 108

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TITLE The Development of Teaching Units for Office Education Simulated Programs for Use in the State of North Dakota. Final Report.
INSTITUTION North Dakota Univ., Grand Forks. Dept. of Business and Vocational Education.
SPONS AGENCY Bureau of Adult, Vocational, and Technical Education (DHEW/OE), Washington, D.C.; North Dakota State Board for Vocational Education, Bismarck.
PUB DATE 15 Jun 73
NOTE 61p.; For the teacher's handbook, see CE 004 107

EDRS PRICE MF-$0.76 HC-$3.32 PLUS POSTAGE
DESCRIPTORS Cooperative Education; *Curriculum Development; Demonstration Projects; Employment Qualifications; Job Skills; *Job Training; Material Development; Models; Occupational Guidance; Office Occupations; *Office Occupations Education; Office Practice; Program Development; Secondary Education; *Simulation
IDENTIFIERS North Dakota; School Business Relationship

ABSTRACT

The document describes the development of a library of 24 North Dakota Occupational Models, each patterned after a specific job in a specific office. A teacher's manual giving tips on implementing the program was also developed. The models were designed to provide high school students with a realistic introduction to a variety of office work and were based on the work experiences of 86 employees in 69 North Dakota offices. The models were field-tested statewide on 325 students (of whom 282 responded to an evaluative questionnaire at the conclusion of the project). The project found that the models can be used in vocational office education programs of any size, can supplement previous education and occupational guidance, can supplement or substitute for cooperative work experience, are useful for the student of less-than-average ability, and can be used regardless of available facilities and equipment. Appendixes detail the mechanics of data gathering, the writing and development of the models, and the field testing and evaluation of the project. There is a brief description of each model, including its degree of difficulty for the student and recommended equipment for its use. Relevant correspondence, questionnaires, and evaluation forms are included. (PR)

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FINAL REPORT

THE DEVELOPMENT OF TEACHING UNITS FOR OFFICE EDUCATION SIMULATED PROGRAMS FOR USE IN THE STATE OF NORTH DAKOTA

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576
in Cooperation With
The North Dakota State Board for Vocational Education

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June 15, 1973

CE004108

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THE DEVELOPMENT OF TEACHING UNITS FOR OFFICE EDUCATION SIMULATED PROGRAMS FOR USE IN THE STATE OF NORTH DAKOTA

Summary

The purpose of this Exemplary Project in Vocational Education for the state of North Dakota was to develop simulated office education materials for use in business and vocational office education programs. "Occupational Models" was selected as the identifying name for the concept developed at the University of North Dakota, Department of Business and Vocational Education, Dr. John L. Rowe, Chairman.

Each of the 24 models available contains two kits: One for the student-employee, one for the teacher-supervisor. Additionally, a teacher's manual was written to accompany the models, for a total of 49 separate kits. These 49 books comprise a "Library of North Dakota Occupational Models."

Occupational models are self-contained instructional packets developed from actual offices in the state of North Dakota. They duplicate many of the demands, pressures, and problem-solving activities confronting the office employee. Models provide a realistic educational experience for students unable to participate in a cooperative office experience program. Model instruction may also be used to broaden and enrich the cooperative plan, as well as provide a career exposure and guidance technique vehicle.

During 1970-71, personnel involved in Phase I of the project conducted the following activities: (1) reviewed simulated programs and materials from other states and commercial sources, (2) established and refined the "Occupational Model Concept," (3) initiated interviews with 69 North Dakota employers, (4) conducted job analyses of office positions within the companies selected, and (5) activated public relations efforts to promote the exemplary project.

The 1971-72 year was devoted to the writing of the 24 models, as follows: (1) preliminary organization of data, (2) standardizing of format, (3) developing and writing models through individual and team effort. Approximately 6,000 pages of simulated materials, including forms and supplies, were developed during Phase II, for a total of 24 models, or 48 kits.

In 1972-73 the models were refined, duplicated, and distributed to 18 secondary office education classes throughout the state for field testing. Approximately 325 students participated, with 282 responding to an evaluation instrument upon conclusion of the experiment. Exemplary project personnel made from three to five visits to schools during the pilot test. Subsequently the models were revised, based on teacher/student suggestions.

Classroom techniques implemented in North Dakota office education programs were incorporated in the 100-page teacher's manual, as well as orientation and teaching methodologies. This book was written during Phase III. Extensive public relations activities were again conducted, including news releases, radio spots, personal letters, speeches and publication of articles.

A final project of Phase III was to conduct a detailed analysis of the office employees' survey undertaken during Phase I. This included tasks, machines used, education, social interaction, and present and prior job experience.

Models are vocationally flexible. They prepare students for work in small, medium, or large offices. They are also instructionally flexible, allowing implementation in small, medium, or large schools. From the variety of model difficulty levels provided, this instructional plan is suitable for high-, average-, or low-ability students. The model design allows the student to work independently, and at his own pace.

The career cluster concept is a built-in feature of the model plan, allowing a student to explore several office positions within one industry; or one position in a variety of fields.

EXEMPLARY PROJECT IN VOCATIONAL EDUCATION

Business and Vocational Education Department
University of North Dakota

Dr. John L. Rowe, Chairman

Time Period

The exemplary project began with the academic year September 1970; and, excluding summers, continued until June 30, 1973.

Problem Areas

The problem of providing adequate work stations for young people wishing to enroll in the vocational cooperative office education program is a monumental task. Where work stations are available they are limited in number and often inadequate for training purposes. In some cases these stations are not representative of the best practices in office procedures. Trainees are also sometimes assigned repetitive or menial tasks, and as a result they do not see the total office function. Additionally, the less-than-average student may be difficult to place even where training stations are available.

Trainees are occasionally mismatched in the placement process as well. The dearth of appropriate work stations often makes it impossible for the teacher-coordinator to change a trainee's assignment once he has been placed. This can prove detrimental to the student because his experience with office work through a single company may thus be distorted.

Students, therefore, need a broader exposure to the reality of office work than is typically available in many communities.

Objectives

The purpose of this exemplary project was to develop simulated teaching

packets for North Dakota office education programs. These simulated materials should be applicable within the classroom, as follows:

1. for students in small communities where adequate work stations are not available to meet the needs of the program.

2. for students in larger communities needing a greater breadth of experience in office activities.

3. for students with less-than-average abilities who wish to upgrade their skills and knowledge prior to placement on a work station.

4. for students who, because of personal or family reasons, do not desire placement on a work station.

5. for students in any situation who desire supplemental office work experience; either prior to, or concurrent with, placement on a work station.

6. for students in any situation who desire to discover their aptitudes and interests; either prior to, or concurrent with, placement on a work station:

   a. through exploring one office position in a variety of companies; i.e., secretarial work in banking, insurance, agri-businesses, retail, and medical.

   b. through exploring several office positions within one type of business; i.e., secretarial, clerk, typist, and bookkeeping positions in the insurance field.

Project Design and Procedures

Phase I, 1970-71, was used primarily for research and development. This included a survey of literature and materials available for simulated office education programs; as well as a state survey of businesses and office employee activities; and a survey of existing vocational office education programs.

Phase II, 1971-72, was spent in developing and writing office simulated curriculum materials for classroom use, based on the data gathered during the first year.

Phase III, 1972-73, was designated as the field testing and refining process for the total program. This included the writing of a teacher's manual to accompany the models, as well as opportunity for in-service training in the proper use of the materials.

Phase I--1970-71.

Various simulated office education programs and samples of office simulation materials were reviewed to develop specific exemplary program goals and objectives. This analysis led to formulation of the North Dakota Plan for Vocational Office Education--the "Occupational Model Concept."

Occupational models are self-contained packets of simulated instructional materials providing an orientation to office work typical to business firms in the state of North Dakota.

The Occupational Outlook Handbook was used as an aid in selecting a representative stratified random sample of offices and businesses common to the state of North Dakota. Efforts were made to include office positions within each of the industrial classifications in the handbook. A total of 69 companies were selected, with 171 office employees identified for the job analyses. (See Tables X,XI

Basic data gathering instruments were developed, including an employer interview checklist, and an employee job analysis form. (See Exhibits A-E)

The remainder of the year was spent in conducting interviews with those company employers named in the selection process, followed by interviews with participating employees.

Public relations efforts were also instigated in order to publicize the exemplary program in office education for the state of North Dakota.

Phase II--1971-72

The major activities conducted during the second phase of the exemplary program included: (1) orientation to the work completed during the first year,

(2) designing the format for writing the North Dakota Occupational Models, (3) selection of models to be written from available data, and (4) actual writing of the 24 models.

Designing the basic format for all models was a prime factor in the year's work. It was determined that two kits would comprise each model; one for the student-employee, one for the teacher-supervisor.

The student-employee kit of each model contains: (1) performance goals and a self-evaluation form, (2) a company personnel manual, which serves as an introduction to that specific business--including organization chart and office layout where available, (3) a procedures manual, a self-help booklet simulating the company files and specific procedures, and (5) working projects. The latter includesa brief description, detailed instructions, recommended equipment and supplies, and a step chart. This chart illustrates the logical flow of individual duties to be performed in carrying out the total project. Working papers and supply forms are also an integral part of each model.

The teacher-supervisor's kit contains: (1) supply forms for reproducing, (2) instructions for that particular model position, (3) evaluation sheets and check-lists, (4) a key for each project, including correct examples, (4) dictation materials, when applicable, and (5) contingency items--extra projects--to be added or inserted. These provide a realistic "office pressure" atmosphere.

The writing staff developed the first model, entitled, "Secretary," Minot Builders Supply, as a joint project. Many hours were spent in consultation with graduate faculty advisors in refining this first model. The second and third models were produced in teams of two. Following revisions and faculty approval, each graduate assistant developed and wrote individual models. Approximate writing time, six to eight weeks per model, for approximately 150 pages each.

Exhibit F describes the 24 models written during Phase II, 1971-72.

In order to verify data and ascertain that project instructions were, in fact, indicative of the simulated office, it was necessary for the staff writers to revisit several business establishments. For the 24 office positions represented in North Dakota Occupational Models, therefore, a number of detailed personal conferences were conducted with office personnel. These companies were particularly commended for their contribution to vocational education in the state of North Dakota.

Phase III--1972-73

The third year was designated for field testing and refining of the 24 occupational models produced during the second year. Complete standardization, editing, and preliminary revisions continued throughout the fall semester. Proofing and editing time averaged twenty to twenty-five hours per model.

Orientation procedures for the 18 participating field test teacher-coordinators began during the fall as well. The list of schools and cooperating teachers can be found in Exhibit G. With the exception of Fargo, South, and Valley City high schools, two models were tested in each vocational office education program, on a rotation basis. One copy of the student-employee kit was distributed to each student, including supplies. A desk copy, plus the supervisor's kit went to the teacher. In many cases graduate assistants presented an orientation lecture to the class, so that students would have a basic understanding of the program and their role in the experiment.

Thereafter, each graduate assistant made weekly telephone calls to his assigned school for the purpose of providing help and suggestions to the teacher. Field test instructions and evaluation sheets which the teachers received are presented in Exhibits H through K.

Numerous public relations' projects were initiated concurrently with the field test activities. These included: (1) news releases to every paper in which either a participating business or a field-test school was located,

(2) personal letters of commendation, (3) speeches given at national educational conventions and schools, (4) articles published in University of North Dakota and national publications, (5) a radio spot on 29 North Dakota radio stations, and (6) the development of a slide series typifying the exemplary program throughout the state. Exhibit L illustrates a personal letter (item 2 above).

Valley City High School used a variety of models--a single copy of each--as a career exploration technique. Student-employees were not required to complete a model. Rather, they worked two weeks in each position. This provided students an opportunity to determine their interests and aptitudes in relation to office work in a variety of companies and positions.

Fargo, South, High School tested the concept of a full-scale model office, implementing a variety of internal office operations, forms, and procedures. With 13 occupational models at her disposal, the teacher-coordinator had the flexibility of adjusting model instruction to suit the needs of a particular class. This experiment is indicative of the type of program that is possible when teachers have a full library of North Dakota Occupational Models.

At the end of the field-test period, graduate assistants conducted exit interviews with participating teachers, and 282 students. Of the original 325 students who participated in the experimental instruction, Scranton, North Dakota, did not complete the field test. Absences accounted for the additional 27 students not available to respond to the student opinionnaire on the day of the exit interview. The results of the students' evaluation of the field test is described in the findings section of this report.

Included in the activities conducted during Phase III was the writing of a 100-page teacher's manual to accompany the North Dakota Occupational Models. This booklet incorporates the various techniques implemented in the field test, as well as orientation and teaching methodologies.

Based on teacher/student recommendations and suggestions, the 24 models were

again revised, prior to final printing. This averaged ten to fifteen hours per model.

During the spring of the third year a detailed study was conducted of the job analysis forms returned from participating North Dakota office employees. The results of this survey are described in the findings section of this report. (See Tables I-IX)

Jerome J. Mack, Grand Forks Attorney, was contacted for the purpose of initiating copyright procedures for the complete library of North Dakota Occupational Models, which includes the teacher's manual. This was conducted through attorneys in Washington, D. C., resulting in one copyright for the entire library of 49 kits.

The Department of Business and Vocational Education at the University of North Dakota undertook the printing and distribution of 101 sets of occupational models. This involved the printing, assembling, packing, and shipping of approximately 325,000 sheets of paper--a total of 4,949 books. Of this number, 80 sets, or 3,920 kits, were sent to the State Board for Vocational Education at Bismarck, North Dakota, as fulfillment of the exemplary program contract. An additional 21 sets were prepared for North Dakota high schools and out-of-state orders.

A two-week workshop, entitled "Model Office Simulation Strategies," was designed for the 1973 summer session in the Department of Business and Vocational Education at the University of North Dakota. A major portion of this course focused on implementation of the North Dakota Occupational Model plan. North Dakota teacher-coordinators, as well as other enrollees, learned how to use these office education simulation packets in the following ways: (1) individualized instruction, (2) position simulation, (3) career exploration, (4) full-scale simulation/model office. The teacher's manual served as a major reference.

The exemplary program staff was seriously handicapped during Phase III, because of the cutback in vocational funds. Rather than five graduate research service assistants and full-time secretary, which were available to work on the

project during Phases I and II, the program operated with three assistants and a three-fifths time secretary. Additionally, because of personal reasons, the third assistant was also lost to the program during the early part of the spring semester. This left two graduate assistants and the secretary to carry the burden of the responsibilities.

Following is a break-down of approximate man hours represented in the exemplary program, 1970 through 1973.

TABLE 01

APPROXIMATE MAN-HOURS REPRESENTED
IN THE EXEMPLARY PROGRAM IN VOCATIONAL EDUCATION

Personnel	No.	Description	Hours Sub-Total	Hours Total
North Dakota offices	171	employee interviews @ 1 hour each	171	
	69	employer interviews @ 1 hour each	69	
	86	employee job analyses @ 10 hours each	860	1,100
University of North Dakota	* 13	graduate assistants @ 600 hours each	7,800	
	5	graduate faculty advisors @ 100 hours each	500	
	* 1	secretary (3 years) @ 1,500 hours each	4,500	12,800
North Dakota schools	18	teacher-coordinators @ 240 hours each	4,320	
	325	high school students @ 120 hours each	27,000	39,000
TOTAL MAN-HOURS ESTIMATED				52,900

*conservative estimate--especially during Phase III.

Accomplishments and Findings

Library of North Dakota Occupational Models

The North Dakota Occupational Model plan should provide every student in the state whose career goal focuses on office employment the opportunity to be vocationally prepared for some level of office work.

As a result of the exemplary program, simulated office education materials appropriate to an agriculturally dominated state have been developed. A major criterion was established during the developmental stage: The materials should be realistic, relevant, and meaningful for students at every ability level. Additionally, the instruction packets were to be designed so that they would be used by teachers, no matter what type of program, facilities, or equipment are available.

The 24 models focus on the performance of production projects which take place in a variety of North Dakota offices. Thus the occupational model concept can substitute or enrich the cooperative office experience. Rather than sending the student out on the job, however, the job has been brought to the student.

Each of the 24 models available contains two kits; one for the student-employee, one for the teacher-supervisor. Additionally, a teacher's manual was written to accompany the models, for a total of 49 separate kits. These 49 books comprise a "Library of North Dakota Occupational Models." A list of occupational models, together with descriptions of each, can be found in Appendix B, Exhibit F.

Survey Results: North Dakota Office Employees

Of the 171 office employees who were interviewed during Phase I of the exemplary project, 86 submitted the completed job analysis forms. Occupational models were developed from these materials during Phase II. An in-depth study of these detailed questionnaires produced the data described on the following

TABLE I

NORTH DAKOTA OFFICE EMPLOYEES
JOB TITLES

Office Employees	Number	Percentage
Clerks	28	33
Bookkeepers	15	18
Secretaries	14	16
General Office	8	9
Office Supervisors	8	9
Receptionists	6	7
Stenographers	5	6
Clerk-Typists	2	2
	86	100

pages. This analyses portrays the duties and responsibilities of selected employees in North Dakota offices; machines used in the operation of their jobs; the background of these employees in terms of education, experience, and qualifications; and the percent of time spent on social interaction.

Table I provides a breakdown of the job titles of the 86 responding employees. The 24 occupational models developed reflect the job titles of selected North Dakota office employees. However, a number of the secretarial models incorporate duties generally performed by workers described as "general office," employees. This is due, in part, to the fact that many North Dakota offices are small, and the office workers often perform a variety of duties no matter what job title they are given.

TABLE II

DISTRIBUTION OF TASKS PERFORMED BY 86 SELECTED NORTH DAKOTA OFFICE EMPLOYEES

	Job Tasks	Performed Task	Percentage
1.	File, retrieve, organize, store, discard	68	79
2.	Verify--self or others	66	77
3.	Mail--incoming, outgoing, prepare, distribute	64	74
4.	Personal information contacts--phone, face-to-face	61	71
5.	Basic arithmetic operations--extend or check amounts	55	64
6.	Type--correspondence, envelopes, cards, memos	53	62
7.	Sort, classify, match, count, total, record: clerical	47	55
8.	Handpost--ledgers, journals, lists, records	45	52
9.	Type--labels, lists, tables, miscellaneous	38	44
10.	Update records, lists, inventories, supplies	31	36
11.	Compile data--for reports, records, information	30	35
12.	Type--reports, records, lists (financial,business)	28	33
13.	Type--orders, tabulations, bills, checks, invoices	22-26	26-30
14.	Record-keeping--checkbook, petty cash, records	22	26
15.	Errands or unusual requests	21	24
16.	Keep time cards, time records, payroll; bank deposit	19	22
17.	Balance or reconcile accounts, records; compute	18	21
18.	Dictation: correspondence, memos; transcribe	17	20
19.	Compose letters, reports, memos	15	17
20.	Transcribe by machine	11	12
21.	Schedule appointments or reservations	12	14
22.	Cleaning, arranging, organizing	11	12
23.	Type manuscript s, minutes, agendas, reports, masters	8	9
24.	Compile lists from other sources	8	9
25.	Analyze or solve problems (other than required above)	7	8
26.	Direct or schedule work for others	3	3

Table II lists in rank order those duties most often performed by the total office employees responding. The duty ranked first by 68 (79%) of the office employees was filing--including retrieving, organizing, storing, and discarding. Most occupational models contain some filing activities.

The task ranked second by 66 (77%) of the employees was verifying work (by self or others) to determine accuracy. Every model emphasizes the need for careful proofreading and checking. Some models are designed so that worker cooperation is necessary to verify work.

Ranking third was the preparation and distribution of mail, as evidenced by 64 (74%) of the employees. Every occupational model, and nearly every project of all models, contains this activity. A variety of methods are provided, so that the student-employee should be exposed to many opportunities to function in this task.

The fourth ranked duty by 61 (71%) employees involves the receiving or giving of information, over the telephone or in person. While it was impossible to design telephone projects in every model, the "Telephone Clerk," Northwestern Bell Telephone Company model is designed around the use of telephone equipment and correct personal-contact techniques.

The duty ranked fifth by 55 (64%) of the employees involves basic arithmetic operations. All bookkeeping and clerical models, and many of the secretarial models, contain computational activities.

Although typewriting operations are not included in the top five ranked items, as reported by North Dakota office employees, items ranked as 9, 12, 13, and 23 all involve typewriting. Additionally, typing is used for a variety of other duties and tasks, such as composing letters, transcribing dictation from machine or shorthand notes. Every occupational model contains typewriting projects, although the secretarial, stenographic, and clerk-typist models use the typewriter to a greater degree than bookkeeping or clerical models.

Table III indicates the use of office machines and their frequency of use by job titles. The typewriter, telephone, ten key adding machine, and the copying machine were found to be used the most often by office employees. The occupational models use the typewriter the most frequently, with the ten-key

TABLE III

USE OF BUSINESS MACHINES IN NORTH DAKOTA OFFICES AS REVEALED BY 86 SELECTED NORTH DAKOTA OFFICE EMPLOYEES

Machines	Daily	Percentage	Weekly	Percentage	Monthly	Percentage	Occasionally	Percentage	Never	Percentage
Addressograph	2	2	0	0	2	2	2	2	80	94½
Bookkeeping Machine	4	5	1	1	1	1	5	6	75	87
Cash Register	0	0	0	0	0	0	3	3	83	97
Check Protector	0	0	0	0	0	0	5	6	81	94
Check Writer	0	0	0	0	0	0	3	3	83	97
Copying Machine	25	29	5	6	4	5	12	13½	40	46½
Electric Calculator	10	12	1	1	0	0	1	1	74	86
Fluid Duplicator	5	6	8	9	4	5	1	1	68	79
Full Key Adder	2	2	0	0	0	0	0	0	84	98
Intercom	4	5	0	0	0	0	1	1	81	94
Postage Meter	0	0	0	0	0	0	12	14	74	86
Printing Calculator	3	3	0	0	0	0	0	0	83	97
Switchboard	7	8	0	0	0	0	2	2	77	90
Tape Recorder	0	0	0	0	0	0	4	5	82	96
Telephone	26	30	0	0	0	0	33	38½	27	31½
Teletype	0	0	0	0	0	0	3	3	83	97
Ten Key Adder	40	47	4	4½	4	4½	4	4½	34	39½
Transcribing Machine	6	7	1	1	0	0	4	5	75	87
Typewriter	66	77	0	0	0	0	7	8	13	15

adding machine as the second most-used item of equipment. While the copying machine is used extensively in North Dakota offices, as opposed to the fluid duplicator, model projects suggest the use of the latter. This was done because most schools have a fluid duplicator at their disposal. Teachers are advised, however, to adjust the equipment needs on duplicating projects so that the student-employee gains exposure to a variety of reproducing machines.

TABLE IV

SOCIAL INTERACTION AS REVEALED BY 86
SELECTED NORTH DAKOTA OFFICE EMPLOYEES

Types of Interaction	Yes	Percentage	No	Percentage	Response	Percentage
External-phone	55	64	2	2	29	34
Internal-phone	57	66	2	2	27	32
External-people	48	56	3	3	35	41
Internal-people	54	63	2	2	30	35

Table IV indicates employee interaction as revealed by the 86 responding office employees in North Dakota. Fifty-five (64%) reported they had external contacts over the telephone; 48 (56%) reported external face-to-face contacts; 57 (66%) reported internal office telephone contacts; and 54 (63%) reported internal face-to-face contacts.

While occupational model instruction can be implemented as an individualized simulated plan, it is recommended that wherever possible the interaction concept be included. Thus the teacher's manual suggests a variety of methods to initiate person-to-person interaction in the classroom simulation program through the use of North Dakota Occupational Models.

The amount of education of the 86 office employees surveyed is indicated in Table V. Forty (47%) of the employees indicated having a 12th grade education, 15 (17%) having 14 years of education, and 1 (1%) having more than a college

degree. Thus, graduates of secondary office education programs in North Dakota should be in a good competitive position in locating office positions in the state, based on their educational background.

TABLE V

AMOUNT OF EDUCATION AS REVEALED BY
86 SELECTED NORTH DAKOTA OFFICE EMPLOYEES

Grade	Number	Percentage
10	1	1
11	0	0
12	40	47
13	22	26
14	15	17
15	1	1
16	0	0
More than 16	1	1
No Reply	6	7
TOTAL	86	100

Table VI and Table VII indicate the years of present and prior work experience of North Dakota office employees. Reporting no prior job experience were 22 (25%) of the employees. Twelve (14%) reported 5-7 years of prior job experience, and 7 (8%) had over 10 years of prior job experience. Forty (46%) of the employees indicated they had less than two years of present job experience. Of the office employees surveyed, approximately 50% had been on their job for less than two years; and more than 75% of the employees had four or fewer years of work experience. This indicates a willingness on the part of North Dakota employers to accept workers with little or no previous work experience.

TABLE VI

YEARS OF PRESENT JOB EXPERIENCE

Years of Experience	Number of Employees	Percentage
Less than 2	40	46
2-4	21	25
5-7	8	9½
8-10	3	3½
11-13	2	2
Over 13	5	6
No reply	7	8
TOTAL	86	100

TABLE VII

YEARS OF PRIOR JOB EXPERIENCE

Years of Experience	Number of Employees	Percentage
0 years	22	25
less than 2	16	19
2-4	16	19
5-7	12	14
8-10	6	7
Over 10	7	8
No response	7	8
TOTAL	86	100

TABLE VIII

NORTH DAKOTA OCCUPATIONAL MODELS

Student Opinionnaire Results

Question	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1. Do you think you learned as much in this class (taught with occupational models), as you would have with other office text-book materials? (check one)	Much more		Little more		About same		Less than		Much less		Not sure	
	96	34.3	102	36.3	51	18.2	23	8.2	6	2.0	4	1.0
2. When you needed help on same phase of your work, where did you usually find the answer? (check more than one, if applicable)	Procedures Manual		Reference Book		Teacher		Classmate		Made own decision		Other	
	102	38.0	17	6.0	92	33.0	111	39.0	13	5.0	-	-
3. How do you feel about Occupational Models as a method of office education instruction?	Enjoyed it very much		Enjoyed it somewhat		No particular feelings		Disliked it somewhat		Disliked it very much			
	58	20.6	140	49.6	27	9.6	47	16.7	10	3.5		
4. To what do you attribute your feelings (as marked in No. 3 above)? Check more than one, if applicable.	More like real office experience		Learned about a specific career		Learned about a type of business		Freedom to work at my own rate		Individual help from teacher		Adequate explanation prior to work	
	147	52	87	31	107	38	187	66	24	9	49	17
	Inadequate explanation prior to work		Not enough help from teacher		Had to take too much responsibility		Did not learn much about office work					
	70	25	12	4	15	5	38	14				

NORTH DAKOTA OCCUPATIONAL MODELS

Student Opinionnaire Results
(continued)

Question	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
5. If you were to take this class again, which methoc of instruction would you prefer?	Occupational Models only		Regular text-book; class instruction		Both occ-models and textbook materials		Other		Uncertain	
	97	34.5	33	11.7	118	41.8	5	1.7	29	10.3
6. Now that you have worked for a North Dakota Co., (through occ-models), would you like to apply for work in this position?			YES		NO					
			164	58.2	118	41.8				
7. Do you think you would like to work in a North Dakota office of some type?			YES		NO		UNCERTAIN			
			191	67.8	50	17.7	41	14.5		
8. If YES, to what do you attribute your feelings? (comments)	Office work interesting, has variety		Opportunity to meet people		Challenging work; requires responsibility		Easy work, (enjoyable, fun)		Feeling of accomplishment		Good pay, fringe benefits	
	121	63.4	42	35.6	27	22.8	67	56.7	19	16.1	8	6.7
9. If NO, to what do you attribute your feelings? (comments)	Different Career Objective		Too routine or boring, no challenge		Too much responsibility, too hard		Don't want a desk job		Want more training first	
	33	36.3	30	32.9	19	20.9	26	28.9	26	28.6

Survey Results: Student Opinionnaire

Table VIII indicates the results of the student opinionnaires given to 282 of the 325 participating field test students in North Dakota secondary office education classes.

In response to the question that asked if students thought they learned as much from occupational model instruction than from some other method, 198 (70%) of the students reported a favorable reaction; 29 (11%) reported an unfavorable reaction; and 51 (18%) were undecided.

Item two on the questionnaire asked where the student-employee received help when in doubt. Students could check more than one item as their source of reference. They had been encouraged to consult with classmates, just as they would ask help of a co-worker on the job when problems arise. The Procedures Manual (simulating company files and procedures) accounted for 102 (38%) of the responses; a classmate accounted for 111 (39%) of the responses; and the teacher as a source of reference accounted for 92 (33%) of the responses.

When asked how much they enjoyed the occupational model plan, 198 (70%) reported a favorable reaction, 57 (20%) unfavorable; and 27 (10%) had no particular feelings. The fourth question provided a list of reasons why students had responded either favorably or unfavorably to the third item.

Approximately 75% of the students expressed a favorable attitude toward occupational model instruction, with 25% having a negative attitude. Under item four, "inadequate explanation prior to work," 70 (25%) of the students expressed a negative attitude because of lack of prior instruction. It would appear from the breakdown of items under question four that those students who have been oriented to the occupational model program--including its purpose and how to use the occupational models--will not only have better success, but will express a more favorable attitude toward the simulated learning experience.

When students were asked if they would like to work for a North Dakota company, specifically the one simulated in their occupational model instruction,

(question 6), many students added comments that since they had used only two occupational models they did not like those positions, but did like the concept; expressing the suggestion that they might like to work in some other North Dakota company office, had they had the option of working on a different model.

It is rarely possible to please everyone all the time. However, it should be apparent that when adequate explanation, orientation, and help is given, the students are more likely to receive a good training experience and have a positive attitude toward occupational model instruction. The career exploration technique is possible where a number of models are available for classroom use.

Table IX indicates the composition of students who responded to the Student Opinionnaire. A total of 155 (55%) of the students having occupational model instruction also had cooperative office experience; with 127 (45%) of those using occupational models having no other office experience prior to graduation from the secondary office education program in North Dakota. Those students who received training in both the simulated method and the placement on community work stations were more often from the larger North Dakota communities, as revealed by 93 (60%) of the students responding from this group of 155.

TABLE IX

COMPOSITION OF THE 282 STUDENTS WHO RESPONDED TO THE OCCUPATIONAL MODEL STUDENT OPINIONNAIRE

Description	Large Communities		Small Communities		Total	
	No.	Percentage	No.	Percentage	No.	Perce
Students with both occupational model instruction and cooperative office experience	93	60	62	40	155	55
Students with occupational model instruction only	43	34	84	66	127	45
	136		146		282	100

Conclusions and Recommendations

The achievement and attainment of success in pre-employment training and career exploration of each student is dependent on the innovation, knowledge, skill, and methodology of the individual teacher. Lacking adequate materials, however, even the most resourceful teacher is handicapped.

The Library of North Dakota Occupational Models, consisting of 24 models, plus a teacher's manual, should provide the teacher with a wide range of materials for classroom simulation programs.

Each model is a self-contained packet and may be used: (1) as individualized instruction, (2) through the rotation plan, (3) with the battery method, (4) in a full-scale model office simulation program, and (5) as a career exploration and vocational guidance technique.

The teacher's manual presents a variety of suggestions for orientation, career exploration, and implementation of the occupational model plan. Each activity cited (see Chapters II and V of the manual) has been tried and found effective during the field test.

Additionally, this exemplary program provided information regarding North Dakota office employment through a survey of job analysis questionnaires submitted by 86 selected office employees. This study included information relative to: duties and responsibilities of selected employees; machines used in North Dakota offices; educational background; experience; and social interaction.

The 24 occupational models were developed from data submitted by office employees, including the job analysis forms, detailed instructions for form and work procedures, and personal interviews and observations of work performed.

The projects provided in these simulated instructional packets reflect the information gathered from North Dakota office employees. Thus the typewriter is the most-used machine in occupational models, just as it is the most-used machine in North Dakota offices. In a similar relationship of occupational

model instruction to North Dakota office duties are the tasks provided the student-employees through working projects.

Conclusions

Based on the field test of the North Dakota Occupational Models and the results of the job analysis survey, it was found that occupational models:

1. can be used by small or large North Dakota vocational office education programs.

2. are appropriate for complementing and supplementing the education and training students have received in basic skill courses.

3. are appropriate for complementing and supplementing occupational guidance within the office cluster.

4. are appropriate for complementing, supplementing, or substituting for cooperative work experience.

5. are appropriate for providing the less-than-average ability student with simulated office experience prior to placement on a community work station.

6. are appropriate for teachers, no matter what type of facilities and equipment are available.

Recommendations

Based on the field test of the North Dakota Occupational Models and the results of the job analysis survey of office employees, it is recommended that:

1. development of a high degree of skill continues to be a major factor in basic office education courses.

2. mastery of a wide range of office and business knowledges continues to be a major factor in basic office education courses.

3. students need a capstone experience which integrates basic skill and knowledge prior to job entry.

4. students' aptitudes and interests should be evaluated prior to working in specific occupational model positions.

5. especially where used as a substitute for cooperative work experience, the occupational model plan should duplicate the principles and procedures outline in the North Dakota Coordinator's Manual, including:

a. orientation to the occupational model plan

b. interviewing student-applicants for model positions

c. supervising the student-employee on the job

d. publicizing the vocational program in the school and community

e. working with advisory committee

f. evaluating student-employees according to office standards

6. educators should continually update their knowledge of office practices in state and national areas.

7. a study should be conducted that includes employer opinions of office workers entering office employment after having occupational model training.

8. a follow-up study should be conducted of students having had cooperative office experience, occupational model training, and traditional office practice classes; for the purpose of continually evaluating North Dakota vocational office education programs.

9. a more detailed study should be made concerning the amount of time office employees spend on external and internalsocial interaction, with implications for curriculum revision in the simulated programs.

10. educators should ccntinually update their knowledge of simulated office education instruction through in-service training, graduate courses, and reading of available literature.

APPENDIX A

Phase I---1970-71

DATA GATHERING

Exhibit A

The University of North Dakota
GRAND FORKS 58202

DEPARTMENT OF BUSINESS EDUCATION

March 3, 1971

Dear

In cooperation with the State Department of Vocational Education, the University of North Dakota is conducting an Exemplary Program in Vocational Education. The objective of our program centers around developing simulated instructional and learning materials in office education. The materials will eventually be used in North Dakota high schools to provide realistic learning experiences in order to prepare students for gainful employment in North Dakota offices.

In order to provide students with this particular type of educational experience, it is necessary to determine typical activities performed by office workers in the state. We are asking if it might be possible for you and your office employees to participate in this particular endeavor. We will need to spend approximately one hour with your office employees in order to develop a job analysis (which would include determining the duties performed by the office worker).

Within the next couple of weeks, we will be contacting you by telephone to answer any questions you may have about the study and to determine whether you are willing to cooperate in this study. At that time, we will make final arrangements to visit you providing you have consented to work with us.

We appreciate your consideration in this matter and we look forward to meeting and working with both you and your staff.

Sincerely,

John L. Rowe

John L. Rowe, Chairman
Business and Vocational Education

mlt

Enclosure

STATE BOARD FOR VOCATIONAL EDUCATION

STATE OFFICE BUILDING
900 EAST BOULEVARD AVENUE
BISMARCK, NORTH DAKOTA 58501

(701) 224-2259
CARROL E. BURCHINAL, DIRECTOR AND EXECUTIVE OFFICER

TO: Business Establishments in North Dakota
FROM: Carrol E. Burchinal, State Director of Vocational Education
SUBJECT: Cooperation in Research to Develop Better Office Employees
DATE: February 3, 1971

The State Department of Vocational Education is sponsoring research designed to make the training of future office workers more realistic and approximate the types of jobs that future employees will perform in representative North Dakota business offices.

This research is being conducted by the Business Education Department at the University of North Dakota under a grant sponsored by our office. Office positions within representative business offices of the state will be studied through job analyses and interviews. Selected samples of the type of work performed will also be requested so that instructional units appropriate to high schools can be developed. These instructional units should enable potential office employees to receive a more worthwhile experience and enable them to make the transition from school to business with less difficulty.

The purpose of this memorandum is to ask for your cooperation in helping to collect the basic data that will be needed for the development of these learning projects. We think we can accurately portray office functions in your type of business if you will assist us.

Any assistance that you can give to members of the research team will be greatly appreciated.

Carrol E. Burchinal
Carrol E. Burchinal
Director of Vocational Education

CEB:cl

Exhibit C

This "Employer Questionnaire" was used as a "checklist" during the interview with participating businessmen. Following the employer interview, the service assistants interviewed office personnel, explained the project in detail, reviewed in depth the use of the data collection instrument (Personal Job Questionnaire), and left copies of the "Personal Job Questionnaire" for the employees to complete and return to the University.

EMPLOYER QUESTIONNAIRE

NAME_____ _____ TITLE_____

MAILING ADDRESS_____ PHONE_____

1. Call to make appointment.

2. Introduction

3. Explain purposes of the Exemplary Program

4. We need two things from your firm (a) basic information from you--the businessman --about your firm, and (b) the cooperation of some of your office personnel. All information will be held in strict confidence.

5. OUR MAJOR PURPOSE IS TO INTERVIEW SOME OF YOUR OFFICE EMPLOYEES AND TO HAVE THEM PROVIDE JOB INFORMATION FOR US. WE NEED EMPLOYEES IN SEVERAL DIFFERENT TYPES OF JOBS. Which individuals would you suggest we interview within your firm?

   A._____

   B._____

   C._____

   D._____

   E._____

6. QUESTIONS FOR THE COOPERATING BUSINESSMAN:

   A. What is the exact nature of your business?

   B. May we have copies of some of your promotional material? (i.e., pamphlets, brochures, etc.)?

C. What are your major services or your products having the largest volume?

D. What type of ownership--single proprietorship, partnership, or corporation?

E. Is this your only office, or is it a branch office?_____

_____ If it is a branch office, where is your home office?

_____

F. Is this one of a chain of offices?

G. What geographic area do you serve from this office?

H. Could you describe your organizational structure--departments, operating units, or chain of authority and responsibility?

I. Do you have a salary schedule?_____ Could you give us an indication of the salaries paid to your office personnel?

J. What fringe benefits are provided for your office personnel? (i.e., vacations, hospital insurance, bonus plans, etc.)

K. Total number of personnel employed at this location--or by this firm?

L. Number of office--including data processing--personnel employed at this location or by this firm?

M. Do you have a schematic drawing of your office area?_____ May we have a copy?

THANK YOU FOR YOUR COOPERATION. It may be necessary for us to call back, although that is very doubtful! Your employees will be completing a questionnaire and returning it to us.

Exhibit D

UNIVERSITY OF NORTH DAKOTA

Department of Business Education

Personal Job Questionnaire

Purpose: This questionnaire is designed to assist you in describing your job. Please tell just what you do in your job and how you do it. All information will be held in strict confidence, and firms will not be identified.

TO BE COMPLETED BY INTERVIEWER:

FIRM NAME _____

JOB TITLE _____

NO. OF EMPLOYEES IN LOCAL OFFICE _____

NO. OF EMPLOYEES WITHIN DEPARTMENT (if applicable) _____

TITLE OF IMMEDIATE SUPERVISOR _____

INDUSTRY _____

REVIEWED BY _____

DATE _____

DESCRIPTION OF DUTIES

JOB DETAILS

1. Indicate and describe all daily activities that you perform in the course of a week and enclose examples of this work when possible. Please jot down each activity and the time consumed immediately after completion of the activity.

EXAMPLE:	ACTIVITY	TIME CONSUMED
	Transcribed and typed one two-page letter	1½ hours
	Alphabetic filing	20 minutes

2.	ACTIVITY	TIME CONSUMED
3.	ACTIVITY	TIME CONSUMED
4.	ACTIVITY	TIME CONSUMED
5.	ACTIVITY	TIME CONSUMED

2. Indicate and describe the important duties you generally perform on a monthly basis and enclose examples of this work when possible. (i.e., compute interest on accounts receivable, prepare monthly financial statement)

3. Indicate and describe the important duties you generally perform on a quarterly, semiannually, or annual basis and enclose examples of this work when possible. (i.e., assemble and type annual sales report, preparation of employer's income tax form)

4. What duties do you consider most important in your job among those duties listed in Number 1, 2, and 3 above?

5. Indicate the job titles of employees whom you supervise if applicable.

Job Title	No. of Employees

6. Indicate job titles or position of people for whom you work.

Job Title	No. of Employers

7. What machines and equipment do you operate in connection with your work? Indicate whether you use them daily, weekly, monthly, or yearly.

8. What kinds of daily job related activities do you conduct over the telephone? Estimate the number of daily telephone contacts for each activity.

   a. Within your department

   b. Outside your department

9. What kinds of daily personal contacts do you make in the usual performance of your job? Estimate the number of daily face-to-face contacts for each activity.

   a. Within your department

   b. Outside your department

10. Education and training:

   A. Grade of school completed: 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, (Circle one)

   B. How many years in present position? _____

   C. Prior years of office experience (excluding present position) _____

   D. Did you receive any on-the-job training or office orientation. Yes _____ No _____ If so, what type and how much?

Exhibit E

This form was provided in quantity for office employees for their use in providing information relative to business forms used in their offices.

FORM IDENTIFICATION

FIRM or DEPARTMENT:

POSITION:

ORIGIN:

FORMS NEEDED:

ACTION TAKEN:

DESTINATION:

EQUIPMENT NEEDED:

Circle one: This is a sample of a task I might perform: DAILY, WEEKLY, MONTHLY, QUARTERLY, SEIMIANNUALLY, OR ANNUALLY.

TABLE X

ROSTER OF PARTICIPATING EMPLOYERS AND EMPLOYEES

PARTICIPATING EMPLOYERS	PARTICIPATING EMPLOYEES
Agsco Chemical and Seed Company, Grand Forks	2
Area Social Service Center, Devils Lake	2
Leo Beauclaire, Attorney, Valley City	1
Christianson, Foughty, Thompson, and Rutten, Attorneys Devils Lake	2
Congress Inn Motor Hotel, Dickinson	3
Country Boy Dairy, Jamestown	1
County Judge's Office, Jamestown	2
County Judge's Office, Devils Lake	1
Deputy Clerk of District Court, Devils Lake	2
Dr. L. K. Hoffman, Dentist, Jamestown	2
Fargo Board of Education, Fargo	4
Farmers Union Oil Company, Dickinson	4
Farmers Union Oil Company, Minot	2
Fingal State Bank, Fingal	1
First National Bank, Valley City	2
Grand Forks Credit Union, Grand Forks	2
Grand Forks Public School District, Grand Forks	3
Grand Forks County Social Service Center, Grand Forks	12
Great Plains Supply Company, Jamestown	1
Haybuster Manufacturing and Distributing Company, Jamestown	2
Texgas Corporation (formerly Home Gas Company), Grafton	1
Home of Economy, Grand Forks	3
Home of Economy, Minot	2
Implement Dealers Mutual Insurance Company, Grand Forks	3
Interstate Brands, Corporation, Bismarck	2
Jamestown Grocery Company, Jamestown	2
Jamestown Sun, Newspaper, Jamestown	2
J. C. Penny Company, Grand Forks	2
Jestrab, Bjella, Neff, & Pippin, Williston	3
KDIX Radio and Television, Dickinson	2
Kirschman Manufacturing Company, Bismarck	3
KMOT Television, Minot	1
KSJB Radio - KSJM FM Radio, Jamestown	1
Liberty National Bank, Dickinson	2
Medical Rehabilitation Center, Grand Forks	1
Mercy Hospital, Valley City	4
Midwest Machine Corporation, Jamestown	1
Minot Builders' Supply Association, Minot	8
Minot Daily News, Minot	2
Montana-Dakota Utilities, Williston	8
Nash-Finch Wholesale Company, Minot	1
North Dakota State Mill and Elevator, Grand Forks	2
Northland Chemical Company, Grand Forks	1
Northern Improvement Construction, Bismarck	1
Northern National Life Insurance Company, Bismarck	2

(Table X Continued)

PARTICIPATING EMPLOYERS	PARTICIPATING EMPLOYEES
Northern School Supply, Fargo	2
Northwestern Bell Telephone Company, Grafton	2
Offutt Potato Company, Grafton	1
Overvold Motors, Inc., Fargo	0
Pioneer Mutual Insurance Company, Fargo	3
Piper, Jaffrey, & Hopwood, Investment Firm, Grand Forks	2
Pringle and Hergistad, Attorneys, Minot	2
Red River National Bank, Grand Forks	3
Retail Credit Company, Grand Forks	1
State Bank of North Dakota, Bismarck	1
State Farm Insurance, Devils Lake	1
State Farm Insurance, Grand Forks	1
State Insurance Department, State Capitol, Bismarck	3
State Tax Department, State Capitol, Bismarck	3
Straus Clothing Company, Jamestown	1
Sweeney Brothers, Bismarck	1
United Hospital Corporation: (Deaconess Unit), Grand Forks	11
United Hospital Corporation: (St. Michael's Unit), Grand Forks	3
United Tribes Employment Training Center, Bismarck	2
Valley Bank of Grand Forks, Grand Forks	2
Valley Realty, Valley City	1
Western Potato Service, Inc., Grand Forks	3
Williams County Agent, Williston	2
Workmen's Compensation, State Capitol, Bismarck	9

TOTAL EMPLOYEES VISITED 69 TOTAL EMPLOYEES INTERVIEWED 171

TABLE XI

JOB TITLES OF OFFICE PERSONNEL INTERVIEWED
(According to Industry)

Hospital

- Ward Secretary (2)
- In-Service Secretary
- Switchboard Operator
- Lab Secretary
- Diet Secretary
- Insurance Clerk
- Ward Clerk
- Medical Secretary
- Medical Records Clerk

Motor Hotel

- Night Auditor
- Switchboard Operator
- Bookkeeper

Retail

- Office Supervisor
- Credit Supervisor
- Bookkeeper
- General Clerical

Credit

- Reporter

Welfare

- Certification Worker (3)
- Eligibly Worker
- Clerk Typist
- Clerk II
- Receptionist
- Medical Clerk
- Clerk-Transcriber
- Typist Clerk
- Clerk-Typist III

Lumber Supply

- Bookkeeper

Manufacturing

- Bookkeeper
- Steno-Switchboard Operator

Radio & TV

- KSJB-KSJM Radio Jamestown (Secretary-Receptionist)

Public School

- Secretary (4)
- Library Clerk
- Clerk-Typist
- Receptionist

Insurance

- File Clerk
- Secretary (3)
- Receptionist(3)
- Casulty Endorsement Clerk
- General Office
- Stenographer

State Government

- Cancellation Clerk
- Clerk of Court
- Clerk I (2)
- Clerk II
- Coding Clerk
- Legal Ass't
- Claim Examiner & Reserve Analyst
- Ass't - Dept. of Safety
- Stenographer
- Secretarial Ass't
- Ass't Statistician

(Table XI Continued)

JOB TITLES OF OFFICE PERSONNEL INTERVIEWED

Banking

- Bookkeeper
- Head Teller
- Stenographer
- Secretary-Receptionist
- Proof Operator
- Proof Machine Clerk

Oil

- Office Supervisor
- Accountant
- Receptionist-Check out Clerk
- Credit Manager
- Office Manager

Builder's Supply

- Secretary (2)
- Posting Machine Operator
- Stock Clerk
- Operator of Billing Machine

Potato

- Payroll Clerk
- Personnel Clerk
- Secretary
- Receptionist

Farm Equipment

- Bookkeeper

Construction Equipment & Parts

- General Office

Contractor of Bridges

- General Office

Newspaper

- Circulation Clerk (3)

Telephone

- Service Representative (2)

Mill

- Receptionist & Secretary
- Secretary

Utilities

- Clerical Bookkeeper

Agsco

- Secretary in Chemical Division
- Secretary to Vice-President

County

- Deputy Clerk of District Court

Wholesale Grocery

- Bookkeeper
- Stenographer

Stocks

- Secretary

Legal

- Legal Secretary
- Secretary (2)

APPENDIX B

Phase II---1971-72

WRITING AND DEVELOPMENT

Exhibit F

NORTH DAKOTA OCCUPATIONAL MODELS

Model Descriptions

Position	Company
Accounting Clerk	Northern School Supply
Bookkeeper	Barta Building Supply
Bookkeeper	Crabtree Insurance
Bookkeeper	Farmers Union
Bookkeeper	Minot Builders Supply
Bookkeeper/Office Manager	Steele Farmers Elevator
Clerk	Piggly Wiggly
Clerk-Typist	Minot Builders Supply
Clerk-Typist	State Farm
Eligibility Clerk	County Welfare
Insurance Rating Clerk	Crabtree Insurance
Personnel Secretary	Western Potato
Secretary	Nokato State Bank
Secretary	County Agent
General Secretary	Northland Chemical
General Secretary	Minot Builders Supply
General Secretary	Fargo Schools
In-Service Secretary	United Hospital
Superintendent's Secretary	Steele Public Schools
Stenographer	Crabtree Insurance
General Stenographer	Pioneer Mutual Insurance
Telephone Clerk	Northwestern Bell
Teller/Bookkeeper	Nokato State Bank
Typist	County Welfare

ACCOUNTING CLERK Average/difficult NORTHERN SCHOOL SUPPLY

The tasks are developed on a daily basis and the work procedure is fairly routine. The procedure is based on incoming checks from customers; and on incoming invoices from suppliers. The Accounting Clerk verifies, records, and processes both incoming checks and invoices. She handles the check-writing and recording process, as well as preparing the daily bank deposit. She also types purchase orders, acknowledgments, and correspondence from rough draft.

Equipment Recommended: typewriter, adding/calculating machine

BOOKKEEPER Average/difficult BARTA BUILDING SUPPLY

The model is concerned with coordinating all the books, records, billing, buying and selling practices of Barta Building Supply, a small town retail lumber company. Included within the model are the monthly billing procedure, banking practices, typing letters and addressing envelopes, using an adding/calculating machine, payment of bills, and other various daily activities. Contingencies cover work already covered in projects.

Equipment Recommended: typewriter, pen, adding-listing machine

BOOKKEEPER Average/difficult CRABTREE INSURANCE AGENCY, INC.

The occupational model requires the student to handle the basic bookkeeping records for a small to average size insurance agency. A knowledge of fundamental bookkeeping procedures is necessary. The project involves the use of journals, cash ledgers, accounts receivable ledger and the cash book. Routine correspondence and filing is part of a number of the projects. The model requires the use of typewriters and adding/calculating machines. Accuracy in computational work as well as legible handwriting is necessary. One of the two suggested plans may be used, but it is recommended that all 12 projects be completed for a more comprehensive understanding.

Equipment Recommended: electric typewriter, pen, calculator, adding machine

BOOKKEEPER Average/difficult FARMERS UNION OIL COMPANY

A general understanding of bookkeeping is helpful along with typing and adding machine skill. This position requires completing a variety of projects such as: writing letters and speed memos; daily recap sheets; completing bi-weekly payroll; daily bank deposit; bank reconciliation and other activities. Contingencies are provided for extra work.

Equipment Recommended: typewriter, adding or calculating machine, pen and/or pencil

BOOKKEEPER Difficult MINOT BUILDERS SUPPLY ASSOCIATION

Bookkeeping and typing and office machines required. The projects are built sequentially, requiring that the student perform most of the projects in order. Contingencies are included to add some flexibility.

Equipment Recommended: typewriter, adding-listing machine, pen or pencil, ruler, copy machine

BOOKKEEPER/OFFICE MANAGER Average/difficult STEELE FARMERS ELEVATOR

This model attempts to have a two fold approach--bookkeeper and office manager, because these two titles may easily be knit together in a grain elevator. The student will mainly be concerned with the buying and selling of grain with grain prices as a governing concept to be kept in mind. Bookkeeping practices are also simulated with journal entries being made. Other projects included are the banking services, operating an adding/listing machine, daily sales, writing checks, insurance reports, typing letters and reporting taxes for wheat.

Equipment Recommended: pen, typewriter, adding/listing machine

CLERK Average PIGGLY WIGGLY GROCERY STORE

This model will aid the student in understanding the basic operations of a grocery store. The student will prepare reports, handle currency and checks, type daily cash register receipts, prepare advertising copy, type employee manual and payroll reports. The student will also process utility payments and administer various mailing procedures.

Equipment Recommended: Typewriter, pen, adding machine

CLERK-TYPIST Average/difficult MINOT BUILDERS SUPPLY

This occupational model consists of typing letters, memos, forms, and reports from rough draft; of using the adding machine in a very elementary capacity; of following written instructions; and of making some minor decisions. Contingencies are provided so the teacher may enrich the model's scope of responsibilities.

Equipment Recommended: typewriter, tape calculator, pencil or pen, ruler, duplicating machine, adding-listing machine with multiplication, adding machine, transcribing machine, dictabelts

CLERK-TYPIST Average/easy STATE FARM INSURANCE COMPANY

Typing is the major skill needed by the student. The projects center on filling out forms or typing simple correspondence from handwritten forms or notes. Most projects are not interrelated, and additional contingencies give the model considerable flexibility.

Equipment Recommended: typewriter

ELIGIBILITY WORKER Difficult/very difficult ROUGHRIDER COUNTY WELFARE OFFICE

The projects involve the beginning functions of individuals making application for a federal-state administered food stamp program through the completion of monthly reports required by federal and state regulations. The projects include the ability to understand federal-state plan manual instructions, accountability of money, selling food stamps, banking, correspondence, proofing of data through the use of numerous report forms, and filing. The student should have the ability to understand complicated form instructions and be able to prove one type of report against data from other sources. Above average skills in typing, use of adding machines, arithmetic and the ability to follow complicated form instructions are essential to complete this model satisfactorily. Selection of one of three plans for completion may be used, but for a comprehensive understanding all 17 projects should be completed.

Equipment Recommended: electric typewriter, pen and pencil, ruler, adding-listing machine

INSURANCE RATING CLERK Average/difficult CRABTREE INSURANCE AGENCY, INC.

The occupational model requires the handling of a number of job performances with insurance. The model contains work experience in rating insurance policies for automobile and homeowner insurance applicants. Activities include re-rating policies that expire, renewing policies, ordering policies, and completing invoices. Maintaining of daily individual files and policy expiration files is an important part of the model. Preparation of policies requires the use of calculators and the typewriter. The student must have the ability to follow moderately difficult insurance instruction forms and be able to compute insurance rates and determine cost. A knowledge of filing and the ability to compose routine correspondence is necessary.

Equipment Recommended: electric typewriter, pen, calculator

PERSONNEL SECRETARY Average/difficult WESTERN POTATO SERVICE, INCORPORATED

The model requires the student to have typing, shorthand, transcription, and transcribing machine skills. The model involves completing personnel records, completing forms, composition and typing of correspondence and maintaining company personnel records.

Equipment Recommended: typewriter, transcription equipment, adding machine, spirit or stencil duplicator

GENERAL SECRETARY Average/difficult NOKATO STATE BANK

Shorthand, typing skill required; and bookkeeping and office machines helpful. The position covers a wide variety of general secretarial skills applied to a medium size commercial bank. Not all projects need to be completed, and contingencies are included making the model very flexible.

Equipment Recommended: typewriter, transcribing machine, copy machine, adding-listing machine, stencil duplicator

SECRETARY Easy/average KIDDER COUNTY AGENT'S OFFICE

This model includes a conglomeration of jobs that a County Agent has given to his secretary to perform for him. Almost the entire model includes the use of a typewriter. The secretary in this model types reports, letters from longhand and typed letters with changes or corrections, listings, numbers, and is concerned with the filing of carbon copies of letters typed.

Equipment Recommended: typewriter, pen, some type of duplcation equipment, adding machine

SECRETARY Easy/average NORTHLAND CHEMICAL COMPANY

Typing and shorthand skill and stencil duplicating is required. Most projects require typing of letters on stencils for mailing to all dealers. Some projects require completing forms for insurance and consignment purposes. Contingencies are provided to supplement previous projects.

Equipment Recommended: typewriter, transcribing machine, stencil duplicator, xerox machine, calculator or adding machine

GENERAL SECRETARY Difficult MINOT BUILDERS SUPPLY ASSOCIATION

Difficult secretary position--shorthand, typing required; and bookkeeping and office machines helpful. A number of options are available and by assigning only certain projects, an average student could use the model. Contingencies are included to add additional flexibility.

Equipment Recommended: typewriter, adding-listing machine, transcribing machines (or shorthand supplies), spirit duplicator, calculator or adding machine, three-hole punch or hand punch

GENERAL SECRETARY Average/difficult FARGO PUBLIC SCHOOLS

This position requires shorthand (or machine transcription skill), transcribing, typing of correspondence, forms, and reports. Bookkeeping activities include keeping an accurate record of 17 school audio-visual accounts; as well as maintaining equipment and inventory charts. Variations are provided through the use of contingencies.

Equipment Recommended: typewriter, duplicator, adding machine, transcribing equipment (optional)

IN-SERVICE SECRETARY Easy/average THE UNITED HOSPITAL

Much typing is required for this position. Letters, minutes of meetings, policy revisions, memos, bulletins, and purchase requisitions and orders are typed. Many projects call for entry work with an end of month bulletin required from this information. Some degree of imagination is needed in preparing attractive designs on memos that are posted on bulletin boards. Contingencies are provided to supplement previous projects.

Equipment Recommended: typewriter, mimeograph, duplicator, stapler

(Exhibit F Continued)

SUPERINTENDENT'S SECRETARY Easy/average STEELE PUBLIC SCHOOL

This model is a conglomeration of projects that a secretary may have to do for a superintendent in a small high school. A considerable amount of typing is included in the preparation of reports, ordering supplies and commodities, transcripts, and letters.

Equipment Recommended: typewriter, spirit duplicator, stapler, adding machine

STENOGRAPHER Average/difficult CRABTREE INSURANCE AGENCY

This position is modeled after the stenographer's activities in a three-girl office, with the insurance agent as the owner of the company. The stenographer sometimes helps the other two office personnel with their work over-load. She types correspondence, memos, and reports from rough draft, takes dictation, or transcribes from machine. She prepares and types budgets, forms, and reports as directed by the agent. The incoming and outgoing mail is part of her responsibility as well as answering the telephone and handling walk-in customers. This "outside-world" contact is simulated through instructions in the project, requiring some decision making on her part. Contingencies provide variation.

Equipment Recommended: electric typewriter, adding/calculating machine, transcription machine, duplicating equipment

STENOGRAPHER Average/difficult PIONEER MUTUAL LIFE INSURANCE COMPANY

Transcription and typing skill required. Secretarial pool type assignments make up the bulk of the projects. Most projects are unrelated and contingencies are included, making the model very flexible.

Equipment Recommended: typewriter, transcription machine, adding-listing machine, mimeograph machine

TELEPHONE CLERK Average NORTHWESTERN BELL TELEPHONE COMPANY

The telephone clerk occupational model is based on actual telephone activities. The following is a description of the activities:

1. Customer contact. Talks with customers and takes necessary action to handle requests. The telephone clerk is responsible for 25 accounts.
2. Clerical. Maintains records and files necessary to perform the customer contact and collection work.
3. Bookkeeping. Keeps customer accounts up-dated at her desk at all times so that customer contact is accurate and complete.

Equipment Recommended: typewriter, telephone, adding/calculating machine, calculator

BOOKKEEPER-TELLER Average/difficult NOKATO STATE BANK

Bookkeeping and typing required plus skill operating an adding machine. The model involves a great quantity of detail checking and balancing work which is simple but requires patience and concentration. Both teller and simple bookkeeping tasks are included. Contingencies are included to bring some flexibility, but most of the projects must be completed in a sequential order.

Equipment Recommended: posting machine or billing machine or typewriter, adding-listing machine, calculating machine

TYPIST Average/difficult ROUGHRIDER COUNTY WELFARE OFFICE

This occupational model requires moderately difficult and varied typing and clerical work. Typing responsibilities come from any or all of the other office personnel in the Welfare Office. Specific typing experiences include preparing correspondence for outgoing mail, answering routine office correspondence, preparing transcripts from rough draft reports, typing from dictation machine, and completing detailed information on numerous types of forms. The occupational model requires above average skill in typing, spelling, business English, arithmetic, and using transcribing machines. It is recommended that the student complete all projects in the model for a more comprehensive understanding of the work performance required of a typist in the Welfare Office.

Equipment Recommended: electric typewriter, adding machine, transcribing machine (if teacher dictates on machine), pen

APPENDIX C

Phase III---1972-73

FIELD TESTING AND EVALUATION

Exhibit G

FIELD TEST PROGRAMS AND PARTICIPATING TEACHERS:

Bismarck	Anita Decker
Central Valley	Darla Twomey
Cooperstown	James Sott
Fargo, South	Cathie Ferguson
Garrison	Donna Larson
Grand Forks, Central	Moine Gates
Larimore	Mary Arndt
Lisbon	Doris Stroh
Midway	Joan Guenther
Minot	Curtis Tonneson Sam Verbitsky
New Rockford	Gary Halverson
Park River	Dennis Hudson
Scranton	Dale Ekstrom
Stanley	Wallace Garbel
Towner	Sharon St. Aubin
Valley City	Roger Morgenthal
West Fargo	Arlin Prochnow
Williston	Kennis Kohlman

Exhibit H

The University of North Dakota
GRAND FORKS 58201

BUSINESS AND VOCATIONAL EDUCATION

Mr. Wallace Garbel
Stanley High School
Stanley, ND 58784

Dear Wallace:

Your participation in field testing the North Dakota Occupational Models is a very important phase of the three-year exemplary project. Vocational office education teachers and students throughout the state, as well as the nation, will benefit from your contribution.

The evaluation you provide will be instrumental in perfecting these career packets. Additionally, classroom implementation techniques you describe will be incorporated in developing a teachers' handbook.

Your detailed reactions and opinions are therefore solicited. We request your response on the attached questionnaire; but please do not feel limited by the items as stated, since the instrument is intended as a guide.

One innovative North Dakota teacher suggests keeping a daily log notebook handy in which to record daily student/teacher remarks, problems, and questions; as well as interesting, exciting, office-lab "happenings."

Thank you for your cooperation in field testing. It is sincerely appreciated. The North Dakota Occupational Model concept of teaching office education will be successful because of your participation and professional diligence in the evaluation process.

Cordially yours,

John L. Rowe
Chairman, Department of Business
and Vocational Education

Olive Church
Research Coordinator

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Enclosures

LEVEL OF DIFFICULTY EVALUATION

The attached description of Occupational Models includes an ability rating for each model. This estimate was arrived at in terms of the "average-ability" student.

A. Please indicate the number of students you estimate could be classified in each of the ability-level categories. (Your classroom)

LEVEL OF ABILITY: (Number of Students)

BELOW-AVERAGE_____ AVERAGE_____ ABOVE-AVERAGE_____

B. Based on your classroom field testing, how would you rate the Occupational Models?

(1) OCCUPATIONAL MODEL TESTED:_____

LEVEL OF DIFFICULTY:

EASY_____ AVERAGE_____ DIFFICULT_____

(2) OCCUPATIONAL MODEL TESTED:_____

LEVEL OF DIFFICULTY:

EASY_____ AVERAGE_____ DIFFICULT_____

(3) OCCUPATIONAL MODEL TESTED:_____

LEVEL OF DIFFICULTY:

EASY_____ AVERAGE_____ DIFFICULT_____

TEACHER QUESTIONNAIRE AND EVALUATION SHEET: NORTH DAKOTA OCCUPATIONAL MODELS

NAME _____ SCHOOL _____

CLASS (OE, Typewriting II, etc.) _____

OCCUPATIONAL MODELS USED _____ STUDENTS (No.) _____

_____

_____

_____

_____

(Use another sheet if necessary)

SUGGESTIONS FOR REVISIONS

1. Format (arrangement of models, sequence, etc.):

2. Company Manual:

3. Procedures Manual:

4. Employee's Manual:

5. Evaluation Sheets:

1. How did you orient students to the North Dakota Occupational Model concept?

2. How did you and your students "assume the role"? (teacher - supervisor
students - employees)

3. How did you develop an "office environment?"

4. Did you implement any of the following? Check those methods used, and describe:

___a. In-out basket (at Supervisor's desk)
___b. In-out basket for each employee
___c. Mailbox for outgoing mail
___d. Reference books readily available
___e. Central Supply (all forms, supplies, letterheads, etc.)
___f. Time-cards (time-clock, or other office simulated device for attendance record, etc.)

COMMENTS:

5. Did you appoint or "hire" an Administrative Assistant? Yes____ No____
If Yes, how did an employee get this job? Applied_____Appointed_____
If Yes, did employees rotate so that more than one person had the opportunity of serving in this capacity? Yes____ No____
If you had an Administrative Assistant, for which of the following was he (she) responsible?

___a. distributing and inventorying of consumable supplies
___b. distributing and picking up mail (from employee desks or baskets)
___c. reproducing extra forms and supplies
___d. proofing: checking materials against key for mailability
___e. time/attendance record (time cards, time-clock, or other method)
___f. filing and retrieving (employee records, office correspondence, etc.)
___g. payroll simulation (salary, as indication of grades, production, etc.)
___h. other_____

COMMENTS:

6. Evaluation procedure. Which of the following instruments did you use?

___a. objective evaluation form (accept/reject sheet)
___b. subjective evaluation form (your evaluation of employees' attitudes,etc.)
___c. employee's self-evaluation
___d. other_____

COMMENTS:

STUDENT OPINIONNAIRE

OPINIONNAIRE: For students after completing occupational model instruction.

Directions: Please circle the numbered response that most nearly reflects your own feelings. Circle one response for each question.

	1	2	3	4	5	6
1. Do you think you learned as much in this class as you would have with regular textbook materials?	much more	little more	about the same	less than	much less	not sure
	1	2	3	4	5	6
2. When you needed help on some phase of the Occupational Model, where did you usually find the answer?	Procedures Manual	a reference book	teacher	classmate	made own decision	othe
	1	2	3	4	5	
3. Now that you have participated in the Occupational Model plan of instruction, how do you feel about it as a method of learning?	enjoyed it very much	enjoyed it somewhat	no particular feelings	disliked it somewhat	disliked it very much	

4. To what do you attribute your feelings (as marked in No. 3)? Check more than one, if applicable:

1. more like a real office
2. learned more about a specific career
3. learned more about a type of business
4. freedom to work at my own rate
5. individual help from the teacher
6. adequate explanation before the work began
7. inadequate explanation before the work began
8. not enough help from the teacher
9. had to take too much responsibility (make own decisions, find answers, etc.)
10. did not seem to learn much about office work

COMMENTS:

5. If you were to take this class again, which method of instruction would you prefer?

_____1. occupational model

_____2. regular textbook and classroom instruction

_____3. both the occupational model and regular textbook/classroom instruction

_____4. other _____

_____5. not sure

6. Now that you have worked for a North Dakota company(ies), would you like to apply for this these positions?

_____Yes _____No

7. If yes, which one(s)?

8. Why or why not? (refers to item 7, above)

9. Since working for North Dakota companies, do you think you would like office work?

_____Yes _____No

10. Why or why not? (refers to item 9, above)

Exhibit L

The University of North Dakota

GRAND FORKS 58201

DEPARTMENT OF BUSINESS EDUCATION

November 20, 1972

Gentlemen:

You may recall the University of North Dakota office simulation study in which your company participated during the spring of 1971. Now that we are in our third and final phase we thought you might like to know the status of the project.

Your help in the data gathering process was most valuable in the development of approximately 6,000 pages of written curriculum materials which have been prepared for office education students in the state. This year 325 North Dakota students in 18 high schools are field-testing the instructional packets. By August 1973 all vocational office education classes in the entire state will have access to the materials.

Without your cooperation in providing interviews to university research staff, for the purpose of making job analyses of selected office positions, this extensive program would not have been possible. The diligence of your employees in collecting forms and recording details of their work procedures is especially note worthy. It is this kind of unselfish interest on the part of business people which can make education more relevant to the "real" world of work.

Enclosed is a copy of a news release which will be sent to your local newspaper by November 30. Should you wish to make additions or suggest changes please let us know. Both the University Business Education staff and the North Dakota State Department for Vocational Education feel that you should receive recognition for your active support and contribution to the students in this state.

Sincerely yours,

John L Rowe

John L. Rowe, Chairman
Business and Vocational Education

Olive Church

Olive Church
Research Coordinator

cef

Enclosure